

REMARKS

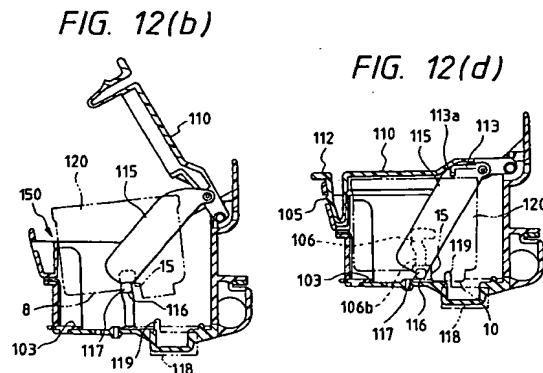
A third Office Action, dated February 10, 2003, rejects pending claims 1-25. Claims 1, 5, 12, & 21 have been rewritten herein. Reconsideration is respectfully requested in light of the amendments and the following remarks.

Claim Rejections Under 35 USC § 102(e)

Applicants respectfully traverse the examiner's rejection of claims 1-5, 8-16, 21-23, and 25 as being anticipated by Miyazawa et al. (U.S. Pat. No. 6,250,750). Miyazawa et al. discloses a fundamentally different structure.

As explained more fully in the specification of the present application and earlier amendments, among other benefits, the carriage assembly of the present application provides an on-axis ink reservoir that allows easy and independent access to both the ink reservoir and the printhead without requiring removal of the ink reservoir from its secured position in order to gain access to the printhead.

In contrast and as shown in the below figures, Miyazawa et al. discloses an ink cartridge alignment and capture structure that does not allow access to a printhead without first removing the ink reservoir.



FIGS. 12(b) and 12(d) of Miyazawa et al. (U.S. Pat. No. 6,250,750).

In particular, Miyazawa et al. teaches inserting an ink cartridge 120 into a carriage 101 with an open carriage cover body 110 as shown in FIG. 12(b) such that the lower portion of the ink cartridge engages a support rod 117, which has been lifted by a lifter 115 extending between the support rod 117 and the carriage cover body 110. By placing the carriage cover body 110 in its closed position as shown in FIG. 12(d), the support rod 117 and connected ink cartridge are guided into the

carriage. The carriage cover body includes a catching piece 112 to detachably hold the carriage cover body in its closed position, thereby securing the ink cartridge 120 within the carriage.

FIGS. 12(a)-(d) of Miyazawa et al., show that the "recording head" 118 is accessible from above the carriage only when the ink cartridge 120 is completely removed from the carriage 101. There is no teaching or suggestion in Miyazawa et al., or any other references of record, to provide a structure that allows an ink reservoir to remain in a secured position on the carriage while still allowing access to the corresponding printhead.

The examiner has taken the position that since the printhead is exposed below the carriage, it is "accessible" from below the carriage. Applicants respectfully traverse the examiner's position on this issue. In order for the printer to operate effectively, the lower side of the carriage must ride very close to an adjacent platform upon which the media is positioned. There is no space to provide access to the printhead from below the carriage, much less allow for the installation or removal of the printhead through this area. Moreover, no references of record teach or suggest such a feature.

In contrast, the present invention allows easy access to the printhead when the mounting portion containing the ink reservoirs is pivoted to its open position as best shown in FIGS. 9 & 13 of the present application. Accordingly, independent claims 1, 12 and 21 cannot be rendered obvious or anticipated by this reference or any other references of record. Moreover, since dependent claims 2-11, 13-16, and 22-25 depend on these now allowable claims, they too should be in condition for allowance.

Also, to facilitate understanding of the invention, claims 1 and 12 have been further amended as noted herein to clarify the scope of the invention and remove unnecessary limitations. Claims 1 and 12 now specifically identify that the printheads are accessible from above the carriage, a feature noted by the examiner as specifically lacking in Miyazawa et al. and all other references of record. (See, February 10, 2003 Office Action, page 8, lines 11-13). Accordingly, claims 1 and 12, and claims 2-11 and 13-16, which depend on claims 1 and 12 should also be allowable on these grounds.

Claim Rejections Under 35 USC § 103

Applicants respectfully traverse the examiner's rejection of claims 6, 7 and 24 as being rendered obvious by Miyazawa et al. (U.S. Pat. No. 6,250,750) in view of Oda et al. (U.S. Pat. No. 5,552,816).

None of these references, alone or in combination, teach or suggest the elements of the present claims. As previously noted, Miyazawa discloses an ink cartridge alignment and capture structure that does not allow independent access to a printhead from above the carriage without first removing an ink reservoir. Similarly, Oda discloses conventional drop-in type ink cartridge mount that does not allow an on-axis ink reservoir to remain seated in its mount while a printhead is being accessed.

Since these teachings are missing from these references of record, they cannot render claims 6, 7, and 24 obvious.

Claim Rejection Under 35 USC § 112 (First paragraph)

Applicants respectfully traverse the examiner's rejection of claims 17-20 as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time of the application was filed, had possession of the claimed invention. In particular, the examiner has commented as follows:

Claim 17 "... removing the first printhead from the carriage *while maintaining the ink reservoir in said secure [sic] position*" is not supported by the original specification. According to page 3, lines 25-28, the carriage is held in the open position (position when reservoir is removed) to further facilitate remove [sic] of the printhead. (February 10, 2003 Office Action, Page 3, lines 1-4) (Emphasis original).

The examiner's comments suggest that he is confused over the meaning of the terms "secured position" and "engaged position" as used in claim 17.

In particular, the preamble of claim 17 establishes that when the ink reservoir is pivotally secured to the carriage, the ink reservoir is in its "secured position." In addition, when the ink reservoir is in fluid communication with the printhead, the ink reservoir is in its "engaged position." The disclosed structures allow the ink reservoir to be in a "secured position" without being in its "engaged position."

Namely, FIGS. 1, 9, 12, and 13 show ink reservoir 24a in a secured position on the ink reservoir mounting portion 50. Ink reservoir mounting portion 50 is pivotally

secured to the printhead mounting portion 52 at pivot 56. As explained more fully beginning on page 8, line 7 of the specification, the ink reservoir is in fluid communication with the printhead 32a when the carriage is in its engaged position 58 (FIG. 2) and the ink reservoir is in its secured position on the ink reservoir mounting portion 50.

Moreover, this section of the specification also explains that when the ink reservoir mounting portion is pivoted about pivot 56 away from the printhead mounting portion, fluid communication between the ink reservoir 24a and printhead 32a is lost. Nevertheless, as best shown in FIGS. 9 and 13, the ink reservoir 24a remains in its "secured position" on the ink reservoir mounting portion 50 even though the ink reservoir is no longer in its "engaged position" relative to the printhead.

Accordingly and as best shown in FIGS. 9, with the ink reservoir mounting portion is its "open position" 60, access to the printheads is possible from above the carriage even while the ink reservoir 24a, 24b remains in its "engaged position" on the ink reservoir mounting portion 50.


This concept is fully disclosed in the figures and fully described in the specification. Accordingly, applicants respectfully traverse the examiner's rejection of these claims. Moreover, since none of the references of record teach or suggest the method as currently claimed in claim 17, it should now be allowable, and dependent claims 18-20, which depend on now allowable claim 17, should also be in condition for allowance.

In view of the foregoing, applicants submit that all of the currently pending claims are in condition for allowance, and respectfully requests that the case be passed to issuance. If the Examiner has any questions, he is invited to contact applicants' attorney at the below-listed telephone number.

Respectfully submitted,

May 12, 2003

By


John R. Dawson
Registration No. 39,504

ipsolon llp
805 SW Broadway # 2740
Portland, Oregon 97205
Phone No. (503) 419-0702
Fax No. (503) 249-7068
E-Mail: john@ipsolon.com

Attachment A to Amendment
(Redlined amendments to claims)

1. (Third Amended) A carriage for an inkjet printer comprising:
a [first]mounting portion;
a printhead operably secured to said [first]mounting portion;
[a second mounting portion]an ink reservoir pivotally secured to said [first]
mounting portion[at a pivot point;
an]said ink reservoir [operably secured to said second mounting portion in a
secured position and]having an engaged position in which the ink reservoir is in fluid
communication with said printhead when said ink reservoir is in said secured position,
and an open position, in which the ink reservoir is pivoted[second mounting portion is
pivoted about said pivot point]away from said [first mounting portion and said ink
reservoir remains in said secured position thereby pivoting said ink reservoir about said
pivot point away from the]printhead such that said printhead may be accessed from
above said mounting portion without removing said ink reservoir from said secured
position.

5. (Twice Amended) The carriage for an inkjet printer of claim 1, wherein said
mounting portion includes:

[first mounting portion is]a printhead mounting-portion [and];
[said second mounting portion is]an ink reservoir mounting-portion; and
wherein said printhead mounting-portion is pivotally secured to said ink reservoir
mounting-portion at [said]a pivot point.

12. (Third Amended) An inkjet printer comprising:
a chassis;
a motor;
a carriage operably secured to the chassis and driven by the motor for reciprocal
movement relative to the chassis;
a printhead operably secured to said carriage;
an ink reservoir operably secured to said carriage in a secured position such that
said ink reservoir may pivot about said printhead at a pivot point while remaining in said
secured position, said carriage having an engaged position in which the ink reservoir is

in fluid communication with said printhead when said ink reservoir is in said secured position, and an open position, in which the ink reservoir is pivoted about said pivot point away from said printhead, such that said printhead may be accessed from above said carriage without removing said ink reservoir from said secured position.

21. (Twice Amended) A carriage for an inkjet printer comprising:

a first mounting portion;

a printhead operably secured to said first mounting portion;

a second mounting portion operably secured to said first mounting portion such that said second mounting portion moves toward and away from said first mounting portion along a defined path;

an ink reservoir operably secured to said second mounting portion in a secured position,

said second mounting portion having an engaged position in which the ink reservoir is in fluid communication with said printhead when said ink reservoir is in said secured position, and an open position in which the second mounting portion is moved away from the first mounting portion along the defined path and said ink reservoir remains in said secured position thereby providing [easy]access to the printhead without detaching said ink reservoir from said secured position on said second mounting portion.